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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/694,452	10/23/2000	Michael Thomas Brady	BLD9-2000-0056US1	9596

7590

03/04/2002

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EXAMINER

NGO, CHUONG D

ART UNIT

PAPER NUMBER

2121

3

DATE MAILED: 03/04/2002

Please find below and/or attached an Office communication concerning this application or proceeding.



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See address
7590 01/22/2002
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H-6

Office Action Summary

Application No.

09/694,452

Applicant(s)

Brady et al.

Examiner

N90

Group Art Unit

2121

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—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE three MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Status

- ☒ Responsive to communication(s) filed on 10-23-2000 & 03-13-2001
- ☐ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- ☒ Claim(s) 1-49 is/are pending in the application.
- Of the above claim(s) _____ is/are withdrawn from consideration.
- ☐ Claim(s) _____ is/are allowed.
- ☒ Claim(s) 1-49 is/are rejected.
- ☐ Claim(s) _____ is/are objected to.
- ☐ Claim(s) _____ are subject to restriction or election requirement.

Application Papers

- ☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- ☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

- ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- ☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been
- ☐ received.
- ☐ received in Application No. (Series Code/Serial Number) _____.
- ☐ received in this national stage application from the International Bureau (PCT Rule 1.7.2(a)).

*Certified copies not received: _____

Attachment(s)

- ☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 2
- ☒ Notice of Reference(s) Cited, PTO-892
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Interview Summary, PTO-413
- ☐ Notice of Informal Patent Application, PTO-152
- ☐ Other _____

Office Action Summary

DETAIL OF ACTION

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-11 and 36-49 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Dierke (5,854,757).

Dierke discloses in cols. 3-7 a fast discrete cosine transform including arranging transform equations into at least one collection (T) having at least two transform constants, and independently scaling the transform constants for each collection with a scaling term (S). The scaling terms are chosen to simplify the transform equations and enable the scaled transform

constants (N) to be represented by sums of power of 2 terms inherently with an error within a predetermined error allowance.

4. Claims 12-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dierke (5,854,757).

It is noted that Dierke does not disclose a use of the data processing in a data compression system, especially in a printer. However, since the use of discrete cosine transform in a compression system is well-known in the art, a person of ordinary skill in the art would have found it an obvious application to use the discrete cosine transform as taught by Dierke in a data compression system and in a printer as claimed in order to reduce circuitry and processing time.

5. Claims 1-49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pineda (5,701,263) in view of Mattela et al. (5,781,239).

As per claims 1-11 and 36-49, Dierke discloses in cols. 3-5 a fast discrete cosine transform processing including arranging transform equations into at least one collection having at least two transform constants, and independently scaling the transform constants for each collection with a scaling term (Pu). The scaling terms are chosen inherently according to a predetermined cost function. It is noted that Pineda does not disclose the scaled transform constants (Txu) represented by sums of power of 2 terms. However, Mattela et al. suggests in figure 16 and in col. 15, lines 50 - col. 16 line 18 the representations of the scaled transform constants by sums of power of 2 terms in order to perform multiplications by simple shift/add

operations. Thus it would have been obvious to a person of ordinary skill in the art to represent the scaled transform constants (Txu) of Pineda by sums of power of 2 terms for performing multiplications by simple shift/add operations as taught by Pineda in order to reduce circuitry and processing time.

As per claims 12-35, the combination of Pineda and Mattela et al. do not disclose a use of the discrete cosine transform processing in a data compression system, especially in a printer. However, since the use of data transform in a compression system is well-known in the art, a person of ordinary skill in the art would have found it an obvious application to use the data processing as taught by combined references in a data compression system and in a printer as claimed in order to reduce circuitry and processing time.

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chuong D. Ngo whose telephone number is (703) 305-9764. The examiner can normally be reached on Monday-Friday from 7:30 AM to 6:00 PM.

The fax phone number for the organization where this application or proceeding is assigned are as follows:

(703) 746-7238	(After Final Communication)
(703) 746-7239	(Official Communication)
(703) 746-7240	(For Status inquiries, draft communication)

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Serial No: 09/694,452
Art Unit: 2121

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1/17/02
~~11-27-01~~



Chuong D. Ngo
Primary Examiner
Art Unit 2121